

<b>FEATURE:</b>		<b>PROJECT:</b>	
Klamath River Dams Removal Partial Removal Option Copco No. 1 Dam & Powerplant Removal Most Probable Low Life Cycle - 50 Year Summary		Klamath River Oregon	
		<b>WOID:</b> AF652	<b>ESTIMATE LEVEL:</b> Feasibility
		<b>REGION:</b> MP	<b>UNIT PRICE LEVEL:</b> Jul-10
		<b>FILE:</b> U:\2011 Projects\Klamath\002 Completed Sheets\MP MPL MPH01 - Copco 1\MPL\Copco 1 MPL - Probable.xlsx\Life Cycle Summary	

PLANT ACCOUNT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
		Periodic Costs - Year 1					\$81,800.00
		Periodic Costs - Year 17					\$17,906.80
		Periodic Costs - Year 25					\$5,460.30
		Periodic Costs - Year 33					\$9,378.46
		Periodic Costs - Year 50					0.00
		(Assumes gov't service / construction contracts)					
		Annual Costs - Maintenance					\$357,511.00
		<b>Subtotal 1</b>					<b>\$472,056.56</b>
		Mobilization	5%	+/-			\$24,000.00
		<b>Subtotal 1 with Mobilization</b>					<b>\$496,056.56</b>
		Escalation to Notice to Proceed (NTP): from Unit Price Level (July, 2010) to NTP (July, 2020)					\$79,637.44
		at	1.5%	per year for	120	months.	
		<b>Subtotal 2 = Subtotal 1 with Mobilization + Escalation to NTP</b>					<b>\$575,694.00</b>
		Design Contingencies	8%	+/-			\$44,306.00
		<b>Subtotal 3 = Subtotal 2 + Design Contingencies</b>					<b>\$620,000.00</b>
		Allowance for Procurement Strategies (APS)	0%	+/-			
		Type of solicitation assumed is: Full and open sealed bid competition					
		<b>Subtotal 4 = Subtotal 3 + APS</b>					<b>\$620,000.00</b>
		<b>CONTRACT COST</b>					<b>\$620,000.00</b>
		Construction Contingencies	18%	+/-			\$110,000.00
		<b>FIELD COST</b>					<b>\$730,000.00</b>
		Non-Contract Costs	25%	+/-			\$180,000.00
		(Environmental Cultural / Mitigation ~ 5%, Engineering					
		Design ~ 4%, Maintenance Service Contract ~ 4%					
		Procurement ~ 1%, Inspections ~ 10%					
		and Closeout ~ 1%)					
		<b>CONSTRUCTION COST</b>					<b>\$910,000.00</b>

Ref.: For appropriate use and terminology, see Reclamation Manual, Directives and Standards FAC; 09-01, 09-02 and 09-03.

QUANTITIES		PRICES	
BY	CHECKED	BY	CHECKED
Rick Benik	Stephen Latham	Greg Akins	5/18/11
DATE PREPARED	PEER REVIEW / DATE	DATE PREPARED	PEER REVIEW / DATE
03/24/11	Tom Hepler P.E. 3/25/11	5/19/11	DCD 6/13/11

<b>FEATURE:</b> Klamath River Dams Removal Partial Removal Option Copco No. 1 Dam & Powerplant Removal Most Probable Low Life Cycle - 50 Year Operation and Maintenance - Initial Capital Costs			<b>PROJECT:</b> Klamath River Oregon				
			<b>WOID:</b> AF652		<b>ESTIMATE LEVEL:</b> Feasibility		
			<b>REGION:</b> MP		<b>UNIT PRICE LEVEL:</b> Jul-10		
			<b>FILE:</b> U:\2011 Projects\Klamath\002 Completed Sheets\MP MPL MPH\03 - JC Boyle\MPH\JC Boyle - MPH - Probable.xlsx\Sheet1				
PLANT ACCOUNT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	1	Furnish, install, and maintain a 7-foot-high chain link fence along the west side of the powerhouse (assume two double 12ft wide gates for vehicle access) (assume replace one time)	86-68130	300	lf	\$50.00	\$15,000.00
	2	Repaint exposed portion of penstocks and vertical vents (Assume repaint 2 times) <i>Estimate assume minor existing ("lead") paint repair during recoating ~ 2% area</i>	86-68130	8,900	ft2	\$4.00	\$35,600.00
	3	Remove paint on east side of powerhouse (assume paint contains heavy metals)	86-68130	1,300	ft2	\$24.00	\$31,200.00
<b>LIFE CYCLE SUBTOTAL</b>							<b>\$81,800.00</b>
<b>QUANTITIES</b>			<b>PRICES</b>				
<b>BY</b> Rick Benik		<b>CHECKED</b> Stephen Latham		<b>BY</b> <i>Greg Atkins</i> Greg Atkins		<b>CHECKED</b> <i>Shawn Martin</i> 5/4/11	
<b>DATE PREPARED</b> 03/21/11		<b>PEER REVIEW / DATE</b> Tom Hepler P.E. 3/24/11		<b>DATE PREPARED</b> <i>5/4/11</i>		<b>PEER REVIEW / DATE</b> <i>5/4/11</i>	

<b>FEATURE:</b> <b>Klamath River Dams Removal</b> <b>Partial Removal Option</b> <b>Removal Site Maintenance</b> <b>Most Probable Low</b> <b>Life Cycle - 50 Year</b> <b>Operation and Maintenance - Periodic Costs</b>	<b>PROJECT:</b> <b>Klamath River</b> <b>Oregon</b>
	<b>WOID:</b> AF484 <b>ESTIMATE LEVEL:</b> Feasibility
	<b>REGION:</b> MP <b>UNIT PRICE LEVEL</b> Jul-10
	<b>FILE:</b> U:\2011 Projects\Klamath\002 Completed Sheets\MP MPL MPH\01 - Copco 1\MPL\Copco 1 MPL - Probable.xlsx\O&M

PLANT ACCOUNT	PAY ITEM	DESCRIPTION	CODE	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	1	<b>Site Maintenance - Annual: Copco 1 Site only*</b>		1	LS	\$17,000.00	\$17,000.00
		Labor needed per year	86-68130	90	mdy**		
		3-Man maintenance crew					
		6 Months active inspection/maintenance -					
		2 Weeks full time (1 month each spring)					
		2 Full days, 2 times each month (5 months)					
		Site maintenance required at JC Boyle,					
		Copco 1 & Copco 2					
		Estimate prorated the time at each dam site based					
		on percent of total partial MP removal construction costs					
		Equipment needed per year	86-68130	30	dy***		
		1-Service truck					
		Includes compressor, welder, generator					
		and general tools					
		Estimate prorated the time at each dam site based					
		on percent of total partial removal construction costs					
		Materials needed per year (percentage of labor	86-68130	15%			
		& equipment)					
		Road maintenance needed per year (percentage	86-68130	10%			
		of labor & equipment)					
		*Total estimated cost for all 3 sites is approximately \$100,000 annually:					
		prorated ±15% for the Copco 1 site only					
		** Man days per year for 50 years					
		***Days per year for 50 years					
		<b>SUBTOTAL THIS SHEET</b>					\$17,000.00

QUANTITIES		PRICES	
<b>BY</b> Rick Benik	<b>CHECKED</b> Stephen Latham	<b>BY</b> <i>Greg Akins</i> Greg Akins	<b>CHECKED</b> <i>Shawn McGinnis 5/4/11</i> Shawn McGinnis
<b>DATE PREPARED</b> 04/18/11	<b>PEER REVIEW / DATE</b> Tom Hepler P.E. 4/18/11	<b>DATE PREPARED</b> 5/4/11	<b>PEER REVIEW / DATE</b> <i>DOO 5/4/11</i> DOO